

Duxbury Nuclear Advisory Committee - Pilgrim update

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The Boston Globe's Sept. 13 lead editorial, "It's too risky to wait for Pilgrim Plant's Shutdown" started with: "The Pilgrim nuclear power plant in Plymouth isn't aging gracefully, and that's reason to worry. It is ranked by NRC among the three least safe reactors in the country." It continued: "Company officials and federal regulators have said Pilgrim's extended lame-duck status won't affect maintenance or vigilance. But given the power plant's history, the assurances provide little comfort. Unplanned shutdowns and other safety-related issues have long been business as usual at the 680-megawatt plant."

In his response to the editorial, Pilgrim's site vice president John Dent said, "The facts support our position that the Pilgrim Nuclear Power Station will operate safely."

Here is Pilgrim's history for the first nine months of 2016:

January: An NRC inspection finds water leak in core spray system that helps cool reactor. The problem was known but went unaddressed for nearly a year. NRC inspectors criticize Pilgrim for its ongoing failure to follow through with repairs.

February: (1) Reactor lowered to half power after water leak found in the main condenser, which circulates water from Cape Cod Bay to cool turbine. (2) NRC investigation finds a security officer at plant skipped more than 200 assigned fire watches between June 2012 and June 2014.

April: Bearings break down on a pump that draws millions of gallons of seawater from Cape Cod Bay to cool plant systems. Pilgrim knew of the bearing problem since Nov. 7.

May: (1) Rapid power down to 50 percent after shear pins break on traveling screens that prevent seaweed from clogging cooling water system. Pilgrim installed pins that can hold about 3,877 pounds during reactor refueling in 2015. Correct pins can hold 8,050 pounds. (2) An NRC inspection again finds corroded supports for piping that distributes cooling water to reactor and other plant systems. Support corrosion had been found seven months earlier. Although some supports had been replaced and repaired; others were not. (3) A boron panel designed to absorb neutrons and prevent a nuclear reaction called fission from occurring in the fuel pool is found to have deteriorated, a long-standing problem.

June: Pilgrim operating at 30 percent while crews worked to repair a seawater leak.

July: Electrical relays relied on to shut safety valves that prevent radioactive release during an accident found to have exceeded their shelf life by 12 years.

August: Four-day reactor shutdown after large valve on main isolation system fails to close quickly enough during testing. Problem with same valve system caused shutdown in August 2015.

September: (1) Manual reactor scram due to high reactor water level – faulty feed-water regulator valve. (2) Release of hydrogen gas into the atmosphere above allowable levels. Although required to do so, Entergy did not notify either the Plymouth or the Duxbury Fire Department, and filed a false report saying that they had followed the notification protocol. (3) A mechanical malfunction of the turning gear that helps spin the turbine and maintain it in proper balance forced another unplanned shutdown.